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1 I. AUTHORITY

2 This Administrative Order ("Order") is issued pursuant to
3 the authority vested in the President of the United States by
4 Section 106(a) of the Comprehensive Environmental Response, Com-
5 pensation, and Liability Act of 1980 ("CERCLA"), 42 U.S.C.
6 §106(a). The President delegated this authority to the Ad-
7 ministrator of the United States Environmental Protection Agency
8 ("EPA" or "Agency") by Executive Order 12580, 52 Fed. Reg. 2923,
9 and further delegated it to the Assistant Administrator for Solid
10 Waste and Emergency Response and the Regional Administrators by
11 EPA Delegation Nos. 14-8-A and 14-14-C. This authority has been
12 redelegated to the Director, Hazardous Waste Management Division,
13 EPA, Region 9 ("Director").

14 II. DEFINITIONS

15 A. "IBW Site" means the Indian Bend Wash Superfund Site
16 (South Area) in Tempe, Arizona. This south area of the IBW Site
17 is roughly bounded by Price Road on the east, Apache Boulevard on
18 the south, Rural (Scottsdale) Road on the west, and the north
19 bank of the Salt River on the north.

20 B. "IMC Site" means the property parcel nos. 132-38-008C
21 and 132-39-007E as listed in the Maricopa County Assessor's Of-
22 fice. IMC Magnetix Corporation currently operates on both par-
23 cels of property, and has operated on parcel no. 132-38-008C
24 since approximately 1962 and on parcel no. 132-39-007E since ap-
25 proximately 1972. IMC Magnetix Corporation currently owns par-
26 cel no. 132-38-008C, and The Murphy Clan Limited Partnership cur-
27 rently owns parcel no. 132-39-007E. The IMC Site is located in

1 Tempe, Arizona. The subsurface portion of the IMC Site includes
2 areas below the surface of the property and adjacent areas to
3 which hazardous substances have migrated.

4 C. "Day" means calendar day unless otherwise noted in this
5 Order.

6 D. "Week" means calendar week, Sunday through Saturday, un-
7 less otherwise noted in this Order.

8 E. "Month" means calendar month unless otherwise noted in
9 this Order.

10 III. PARTIES BOUND

11 A. This Order shall apply to and be binding upon IMC Mag-
12 netics Corporation, a corporation ("IMC" or "Respondent"), its
13 agents, successors and assigns. No change in ownership or opera-
14 tional status will alter Respondent's obligations under this Or-
15 der. Respondent shall provide a copy of this Order to all con-
16 tractors, subcontractors, laboratories, and consultants which are
17 retained by Respondent to perform the work required by this Or-
18 der, within five (5) days after the effective date of this Order
19 or within five (5) days of retaining their services. Not-
20 withstanding the terms of any contract or agreement, Respondent
21 is responsible for compliance with this Order and for ensuring
22 that its employees, contractors, and agents comply with this Or-
23 der.

24 B. Respondent shall not convey any title, easement, or
25 other interest it may have in any property comprising the IMC
26 Site, and Respondent shall not convey any interest in the cor-
27 poration, without a provision permitting the continuous implemen-

1 tation of the provisions of this Order. Respondent shall provide
2 a copy of this Order to any subsequent owner(s) or successor(s)
3 before any ownership rights are transferred. Respondent shall
4 advise EPA in advance of any anticipated transfer of interest.

5 IV. FINDINGS OF FACT

6 A. IMC Magnetics Corporation manufactures and reconditions
7 aircraft components. Its operations include machining,
8 electroplating, and assembly. IMC has been in operation at the
9 IMC Site since 1962.

10 B. On the IMC Site, IMC operates out of three buildings:
11 1900 and 1920 East 5th Street on the north side of the street on
12 parcel no. 132-38-008C, and 1901 East 5th Street on the south
13 side of the street on parcel no. 132-39-007E. The Northern
14 Production Facility, which includes the plating shop, waste water
15 regeneration system and appurtenances, is at 1900 East 5th
16 Street, and the Assembly Shop and Administration Offices are at
17 1920 East 5th Street. The Southern Production Facility, or the
18 Repair and Overhaul Shop, and appurtenances, are at 1901 East 5th
19 Street.

20 C. IMC's electroplating processes use plating solutions and
21 fresh water rinses. In its electoplating processes, IMC uses a
22 cadmium-cyanide solution, a nickel-chromium solution, and a
23 brush-on silver solution. Heavy metals used in these processes
24 include: cadmium, nickel, chromium, silver and lead. Waste liq-
25 uid from the cadmium plating operation and the nickel-chromium
26 plating operation contains cadmium, cyanide, nickel and chromium.

27 D. Between 1963 and 1986, the waste liquid containing cad-

1 mium, cyanide, nickel, and chromium was collected in a 900 gallon
2 underground storage tank. Chlorine was added to destroy the
3 cyanide, and the pH was adjusted to precipitate some of the me-
4 tal. The waste liquid was then disposed on-site through a 600
5 gallon underground tank into a leach field. Between 1963 and
6 1986, approximately 6,000 to 8,000 gallons per day of waste liq-
7 uid was disposed on-site.

8 E. Since 1986, IMC has collected its spent plating solu-
9 tions in drums which are hauled off-site. In 1985, IMC installed
10 a deionization system to treat and recycle its waste rinsewater,
11 and the system has been in operation since 1986. The system
12 removes metal cations and cyanide anions by an ion exchange sys-
13 tem. The ion exchange resin is backwashed and recharged ap-
14 proximately once every two weeks. The backwash water is treated
15 and discharged into the City of Tempe sewer system.

16 F. Since 1962, IMC has used several solvents in its opera-
17 tions to clean and degrease parts. Between 1984 and 1988, IMC
18 purchased approximately 4,300 gallons per year of solvents in-
19 cluding approximately 1,100 gallons of 1,1,1-trichloroethane
20 (1,1,1,-TCA) per year and 175 gallons of trichloroethylene (TCE)
21 per year. During that time, IMC estimates that approximately 280
22 gallons per year of waste solvent were generated: 275 gallons of
23 1,1,1-TCA and 4 gallons of TCE. Manifest records indicate that
24 approximately 275 gallons per year of 1,1,1-TCA were disposed
25 off-site. Between 1977 and 1984, IMC estimates that ap-
26 proximately 260 gallons per year of waste solvent were generated,
27 250 gallons of 1,1,1-TCA and 10 gallons of TCE. Between 1962 and

1 1977, IMC estimates that approximately 250 gallons per year of
2 waste solvent were generated, all 1,1,1-TCA. IMC has no waste
3 manifest records for the disposal of solvents prior to 1984.

4 I. The Indian Bend Wash Superfund Site was placed on the
5 National Priorities List on September 1, 1983. The Indian Bend
6 Wash Superfund Site (South Area) is within the boundaries of the
7 Indian Bend Wash Superfund Site. Indian Bend Wash was listed on
8 the National Priorities List on the basis of volatile organic
9 compounds ("VOCs") detected in samples from water supply wells.
10 The VOCs, trichlorethylene (TCE), perchloroethene (PCE), and
11 1,1,1-trichloroethane (1,1,1-TCA) have been used typically as sol-
12 vents by industrial facilities located within the Indian Bend
13 Wash Superfund Site boundaries.

14 J. The Arizona Department of Health Services, now the
15 Arizona Department of Environmental Quality ("ADEQ"), has con-
16 ducted inspections over the last several years at IMC's facility;
17 one was conducted on March 15, 1984, and another was conducted on
18 February 8, 1989. As a result of those inspections, ADEQ con-
19 cluded that IMC has been and is in violation of state hazardous
20 waste laws, as well as federal hazardous waste laws pursuant to
21 the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C.
22 §6901 et seq. As a result of the March 15, 1984 inspection, ADEQ
23 determined that IMC was required to obtain a RCRA Part B Permit
24 for its on-site leach field disposal system which was used to
25 dispose of waste liquid. IMC later elected to stop using its
26 disposal system and to pursue a RCRA "Clean Closure," or to clean
27 up the area to meet the requirements of RCRA. Since 1986, IMC

1 has been working with ADEQ to implement an adequate Clean Closure
2 plan.

3 K. IMC has hired consultants to analyze soil samples col-
4 lected from various locations on the IMC Site since 1985.
5 Several areas have been sampled and they include: at or near the
6 leach field; around the two holding tanks used in the liquid
7 waste disposal system; beneath the floor of the plating shop; and
8 just south of a concrete pad behind the Repair and Overhaul Shop.
9 In 1988, EPA analyzed soil gas samples collected at various loca-
10 tions on the IMC Site, as well as at locations around the IMC
11 Site. Results of the consultant and EPA sampling indicate that
12 chromium, cadmium, cyanide, TCE, 1,1,1-TCA, PCE, and 1,1-
13 dichloroethene (1,1-DCE) are present at the Site.

14 V. CONCLUSIONS OF LAW

15 A. The IMC Site is a "facility" as defined in Section
16 101(9) of CERCLA, 42 U.S.C. §9601(9).

17 B. Respondent is a "person" as defined in Section 101(21)
18 of CERCLA, 42 U.S.C. §9601(21).

19 C. Analyses of samples collected during past EPA investiga-
20 tions, as well as IMC's contractor's investigations, indicate the
21 presence of: chromium, cadmium, cyanide, TCE, 1,1,1-TCA, PCE, and
22 1,1-DCE at the IMC Site. These substances, among others, are
23 "hazardous substances" as defined in Section 101(14) of CERCLA,
24 42 U.S.C. §9601(14).

25 D. The past, present, and potential migration of hazardous
26 substances from the facility constitutes an actual or threatened
27 "release" as defined in Section 101(22) of CERCLA, 42 U.S.C.

1 §9601(22).

2 E. Respondent currently owns, and has owned since ap-
3 proximately 1962, the northern parcel, parcel no. 132-38-008C,
4 upon which part of the IMC Site is located and upon which the
5 hazardous substances are located. Respondent operates and has
6 operated since approximately 1963, the facility on the northern
7 parcel, parcel no. 132-38-008C. Respondent operates and has
8 operated since approximately 1973, the facility on the southern
9 parcel, parcel no. 132-39-007E. The facility is on the IMC Site
10 upon which the hazardous substances are located. Respondent is a
11 potentially responsible party as defined in Section 107(a) of
12 CERCLA, 42 U.S.C. §9607(a).

13 VI. DETERMINATIONS

14 A. The Director has determined that an actual or threatened
15 release of hazardous substances from the IMC Site may present an
16 imminent and substantial endangerment to the public health or
17 welfare or the environment.

18 B. The actions required by this Order are necessary to
19 protect the public health, welfare and the environment.

20 C. If performed satisfactorily, the actions required by
21 this Order are consistent with the National Contingency Plan, 40
22 CFR Part 300 ("NCP").

23 VII. NOTICE TO THE STATE

24 Pursuant to Section 106(a) of CERCLA, 42 U.S.C. §9606(a),
25 EPA has notified the State of Arizona of the issuance of this Or-
26 der by providing the Arizona Department of Environmental Quality
27 a copy of this Order.

1 VIII. WORK TO BE PERFORMED

2 A. General Provisions

3 1. All work shall be conducted in accordance with:
4 CERCLA; the NCP; EPA "Guidance for Conducting Remedial Investiga-
5 tions and Feasibility Studies Under CERCLA" (EPA, October 1988)
6 (collectively referred to herein as "RI/FS Guidance"); the stan-
7 dards, specifications, and schedules contained in the work plan;
8 the guidance referenced in Section IX of this Order (Sampling,
9 Access, and Data/Document Availability); and any other applicable
10 EPA guidance documents.

11 2. All work performed by or on behalf of Respondent
12 pursuant to this Order shall be performed under the direction and
13 supervision of an Arizona registered civil engineer or Arizona
14 registered geologist with expertise in hazardous waste site in-
15 vestigation. Within thirty (30) days prior to initiation of work
16 at the facility, Respondent shall notify EPA in writing of the
17 name, title and qualifications of such engineer or geologist and
18 of any contractors and/or subcontractors to be used in carrying
19 out the terms of this Order. The qualifications of the persons
20 undertaking the work for Respondent shall be subject to EPA's
21 review. If EPA disapproves in writing of any person's technical
22 and/or experience qualifications, Respondent shall notify EPA
23 within thirty (30) days of Respondent's receipt of EPA's written
24 notice, of the identity and qualifications of the replacement(s).
25 A subsequent EPA disapproval of the replacement(s) shall be
26 deemed a failure to comply with the Order.

27 3. Subsequent to selection of the registered engineer,

1 registered geologist, contractors, or subcontractors as described
2 in Paragraph VIII.A.2., above, Respondent may propose that dif-
3 ferent individuals, contractors and/or subcontractors direct and
4 supervise the work required by this Order. If Respondent wishes
5 to propose such a change, Respondent shall notify EPA in writing
6 of the name, title, and qualifications of the proposed in-
7 dividuals and the names of principal contractors and/or sub-
8 contractors proposed to be used in carrying out the work required
9 by this Order. Any such individual, contractors and/or sub-
10 contractors shall be subject to approval by EPA. EPA shall give
11 Respondent its approval or disapproval within thirty (30) days of
12 receiving from Respondent the information required by this
13 paragraph. The naming of any replacement(s) by Respondent shall
14 not relieve Respondent of any of its obligations to perform the
15 work required by this Order. A subsequent EPA disapproval of the
16 replacement(s) shall be deemed a failure to comply with the Or-
17 der.

18 4. All work plans, schedules, and other reports that
19 require EPA's approval and are submitted by Respondent pursuant
20 to this Order are incorporated in this Order upon approval by
21 EPA. All work plans, schedules, and other reports written by EPA
22 pursuant to this Order are incorporated in this Order when such
23 work plans, schedules, and other reports are finalized by EPA.

24 5. All required sample analyses shall be conducted in
25 compliance with Section IX of this Order at a laboratory using
26 EPA-approved methods and procedures.

27 B. Work and Deliverables

1 Based on the Findings of Fact, Conclusions of Law, and
2 Determinations, EPA hereby orders Respondent to perform the fol-
3 lowing work under the direction of the EPA's Remedial Project
4 Manager, and to comply with all the requirements of this Order.

5 1. Respondent shall initiate the activities set forth
6 in the Statement of Work ("SOW") (Attachment A to this Order).
7 The SOW lists and describes the activities necessary to determine
8 the nature and extent of contamination at the IMC Site.

9 2. Respondent shall provide monthly progress reports
10 to EPA with respect to actions and activities undertaken pursuant
11 to this Order. At a minimum, these progress reports shall in-
12 clude: (1) a description of progress made during the reporting
13 period; (2) a summary of items submitted to EPA under the Order
14 during the reporting period; (3) a list of samples submitted for
15 chemical analysis, including those for which analyses have been
16 returned, and those for which analyses have not been returned,
17 during the reporting period; (4) results of all sample analyses
18 and/or tests or other technical data generated by Respondent or
19 on Respondent's behalf during the reporting period; (5) a
20 description of all problems encountered and solutions developed
21 and implemented for those problems during the reporting period;
22 (6) a description of work planned, including schedules, for the
23 next two months after the reporting period; and (7) a description
24 of all problems anticipated in the next two months following the
25 reporting period.

26 3. Deliverables to be submitted by Respondent are
27 listed below. This listing includes the schedule that Respondent

1 shall follow.

2 Deliverable
3 **Remedial Investigation**
4 **Work Plan**

Schedule

The Draft Work Plan is due 45 days after the effective date of this Order.

4

5

6

The Final Work Plan is due 20 days after Respondent has received EPA comments on the Draft Work Plan.

7 **Field Sample Plan**

8

The Draft Field Sample Plan is due 45 days after the Work Plan is approved by EPA.

9

10

11

The Final Field Sample Plan is due 20 days after Respondent has received EPA comments on the Draft Field Sample Plan.

12

**Quality Assurance/
Quality Control Plan**

13

The Draft Plan is due 45 days after the Work Plan is approved by EPA.

14

15

16

The Final Plan is due 20 days after Respondent has received EPA comments on the Draft Quality Assurance/Quality Control Plan.

17 **Health & Safety Plan**

18

The Health & Safety Plan is due 45 days after the Work Plan is approved by EPA.

19 **Remedial Investigation Report**

20

The Draft Report is due 90 days after the field work is completed.

21

22

23

Monthly Progress Reports

24

25

The Final Report is due 30 days after Respondent receives EPA comments on the Draft Report.

Progress Reports are due once a month at the end of the month.

26

4. With the exception of the Health & Safety Plan, EPA

27

shall review, comment, and approve or disapprove each plan,

1 report, or other deliverable submitted by Respondent. All EPA
2 comments on draft deliverables shall be incorporated by Respon-
3 dent. EPA intends to review all plans (with the exception of the
4 Health & Safety Plan), reports, or other deliverables within
5 thirty (30) days of receipt of each document. EPA shall notify
6 Respondent in writing of EPA's approval, disapproval of a final
7 deliverable or if EPA requires additional review time. In the
8 event of any disapproval, EPA shall specify the reasons for such
9 disapproval, EPA's required modifications, and a time frame for
10 submission of the revised report, document, or deliverable. If
11 the modified report, document or deliverable is again disapproved
12 by EPA, EPA shall first notify Respondent and then may draft its
13 own report, document or deliverable and incorporate it as part of
14 this Order, and/or seek penalties from Respondent for failing to
15 comply with this Order, and/or conduct the remaining work re-
16 quired by this Order.

17 5. All documents, including monthly progress reports,
18 technical reports, and other correspondence to be submitted by
19 Respondent pursuant to this Order, shall be sent by U.S. mail to
20 the following addressees or to such other addressees as EPA
21 hereafter may designate in writing, and shall be deemed submitted
22 on the date received by EPA. Respondent shall submit two (2)
23 copies of each document to EPA.

24 Documents to be submitted to EPA shall be sent to:

25 Diane Grosser, P.E.
26 Remedial Project Manager (H-7-2)
27 Hazardous Waste Management Division
U.S. EPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105

1 Phone: (415)744-2367

2 One copy shall be sent to:
3 Mr. Al Brown
4 Arizona Department of Environmental Quality
5 Hazardous Waste Compliance Section
6 2005 Central Avenue
7 Phoenix, Arizona 85004

8 6. Field work shall begin no later than sixty (60)
9 days after EPA has approved the Field Sampling Plan and Quality
10 Assurance/Quality Control Project Plan.

11 IX. SAMPLING, ACCESS, AND DATA/DOCUMENT AVAILABILITY

12 A. While conducting the sample collection and analysis ac-
13 tivities required by the Order, Respondent shall use the quality
14 assurance, quality control, and chain of custody procedures
15 described in the "EPA NEIC Policies and Procedures Manual," May
16 1978, revised May 1986, EPA-330/9-78-001-R, and "U.S. EPA Region
17 9 Guidance for Preparing Quality Assurance Project Plans for Su-
18 perfund Remedial Projects," 9QA-03-00, U.S. EPA Region 9 QAMS,
19 September 1989, and upon receipt by Respondent from EPA, any
20 final amended or superseding versions of such documents. To
21 provide quality assurance and maintain quality control, Respon-
22 dent shall:

23 1. use a laboratory which has a documented Quality As-
24 surance Program that complies with EPA guidance document QA-03-
25 00;

26 2. ensure that EPA personnel and/or EPA authorized
27 representatives are allowed access to the laboratory and person-
nel used by Respondent for analysis;

3. ensure that the laboratory used by Respondent for

1 analysis performs such analyses according to a method or methods
2 approved by EPA in the Sampling and Analysis Plan to be submitted
3 by Respondent.

4 B. At the request of EPA, Respondent shall provide to EPA
5 and/or its authorized representatives split or duplicate samples
6 of any samples collected by Respondent as part of the work plan.
7 Respondent shall notify EPA in the preceding monthly report of
8 any planned sample collection activity or, if circumstances
9 preclude notice in the preceding monthly report, no later than
10 seven (7) days prior to the planned sampling event.

11 C. Nothing in this Order shall be interpreted as limiting
12 EPA's inspection or information gathering authority under federal
13 law.

14 D. For purposes of this Order, EPA's authorized representa-
15 tives shall include, but not be limited to, the Arizona Depart-
16 ment of Environmental Quality and consultants and contractors
17 hired by EPA to oversee activities required by this Order.

18 X. OTHER APPLICABLE LAWS

19 A. Respondent shall undertake all actions required by this
20 Order in accordance with the requirements of all applicable lo-
21 cal, state, and federal laws and regulations unless an exemption
22 from such requirements is specifically provided under CERCLA or
23 unless Respondent obtains a variance or exemption from the ap-
24 propriate governmental authority.

25 B. Any materials removed from the facility shall be dis-
26 posed of or treated at a facility in accordance with Section
27 121(d)(3) of CERCLA, 42 U.S.C. §9621(d)(3).

1 dence concerning the activities performed pursuant to the terms
2 and conditions of this Order, shall be delivered in accordance
3 with Paragraph VIII B.5.

4 B. EPA and Respondent may change their respective Remedial
5 Project Manager and Project Coordinator. Such a change shall be
6 accomplished by notifying the other party in writing at least one
7 week prior to the change except in the case of an emergency, in
8 which case notification shall be made orally followed by written
9 notification as soon as possible.

10 C. Consistent with the provisions of this Order, the EPA
11 Remedial Project Manager shall also have the authority vested in
12 the On-Scene Coordinator ("OSC") by the NCP, unless EPA designates
13 a separate individual as OSC, who shall then have such
14 authority. This includes, but is not limited to, the authority
15 to halt, modify, conduct, or direct any tasks required by this
16 Order and/or undertake any response actions (or portions of the
17 response action) when conditions present or may present a threat
18 to public health or welfare or the environment as set forth in
19 the NCP.

20 D. The absence of the EPA Remedial Project Manager or the
21 On-Scene Coordinator from the Site shall not be cause for the
22 stoppage of work. Nothing in this Order shall limit the
23 authority of the EPA RPM or OSC under federal law.

24 XIII. MODIFICATION OF WORK REQUIRED

25 A. In the event of unanticipated or changed circumstances
26 at the facility, Respondent shall notify the EPA Remedial Project
27 Manager or, if the EPA's RPM is unavailable, the EPA On-Scene

1 Coordinator by telephone within twenty-four (24) hours of dis-
2 covery of the new or changed circumstances. This verbal
3 notification shall be followed by written notification postmarked
4 within five (5) days of discovery of the new or changed cir-
5 cumstances.

6 B. The Director may determine that in addition to tasks ad-
7 dressed herein, additional work may be required. Where consis-
8 tent with Section 106(a) of CERCLA, the Director may direct as an
9 amendment to this Order that Respondent perform these response
10 actions in addition to those required herein by any plan.
11 Respondent shall implement the additional tasks which the Direc-
12 tor identifies. The additional work shall be completed according
13 to the standards, specifications, and schedules set forth by the
14 Director.

15 XIV. SITE ACCESS

16 A. Respondent shall permit EPA and its authorized represen-
17 tatives to have access at all times to the IMC Site to monitor
18 any activity conducted pursuant to the work plan to conduct such
19 tests or investigations as EPA deems necessary. Nothing in this
20 Order shall be deemed a limit upon EPA's authority under federal
21 law to gain access to the IMC Site.

22 B. To the extent that Respondent requires access to land
23 other than land it owns in carrying out the terms of this Order,
24 Respondent shall, within forty-five (45) days of the effective
25 date of this Order, obtain access for EPA, its contractors and
26 oversight officials; state oversight officials and state contrac-
27 tors; and Respondent or its authorized representatives. If

1 Respondent fails to gain access within forty-five (45) days, it
2 shall continue to use best efforts to obtain access until access
3 is granted. For purposes of this paragraph, "best efforts" in-
4 cludes but is not limited to, seeking judicial assistance and the
5 payment of money as consideration for access. If access is not
6 provided within the time referenced above, the EPA may obtain ac-
7 cess under Sections 104(e) or 106(a) of CERCLA.

8 XV. DELAY IN PERFORMANCE

9 A. Any delay in performance of this Order that, in the
10 EPA's judgment, is not properly justified by Respondent under the
11 terms of this Section shall be considered a violation of this Or-
12 der. Any delay in performance of this Order shall not affect
13 Respondent's obligations to fully perform all obligations under
14 the terms and conditions of this Order.

15 B. Respondent shall notify EPA of any delay or anticipated
16 delay in performing any requirement of this Order. Such
17 notification shall be made by telephone to EPA's RPM within
18 forty-eight (48) hours after Respondent first knew or should have
19 known that a delay might occur. Respondent shall adopt all
20 reasonable measures to avoid or minimize any such delay. Within
21 five (5) business days after notifying EPA by telephone, Respon-
22 dent shall provide written notification fully describing the na-
23 ture of the delay, any justification for delay, any reason why
24 Respondent should not be held strictly accountable for failing to
25 comply with any relevant requirements of this Order, the measures
26 planned and taken to minimize the delay, and a schedule for im-
27 plementing the measures that will be taken to mitigate the effect

1 of the delay. Increased costs or expenses associated with im-
2 plementation of the activities called for in this Order are not
3 justifications for any delay in performance.

4 C. If Respondent is unable to perform any activity or sub-
5 mit any document within the time required under this Order,
6 Respondent may, prior to the expiration of the time, request an
7 extension of time in writing. The extension request shall in-
8 clude a justification for the delay. Submission of an extension
9 request shall not affect Respondent's obligation to comply with
10 the requirements of this Order.

11 D. If EPA determines that good cause exists for an exten-
12 sion of time, it may grant a request made pursuant to Sub-
13 paragraph C, above, and specify in writing a new schedule for
14 completion of the activity and/or submission of the document.

15 XVI. ENDANGERMENT AND EMERGENCY RESPONSE

16 A. In the event of any action or occurrence during the
17 performance of the work which causes or threatens to cause a
18 release of a hazardous substance or which may present an im-
19 mediate threat to public health or welfare or the environment,
20 Respondent shall immediately take all appropriate action to
21 prevent, abate, or minimize the threat, and shall immediately
22 notify EPA's RPM, or, if the RPM is unavailable, EPA's OSC. If
23 neither of these persons is available, Respondent shall notify
24 the EPA Emergency Response Unit, Region 9, phone number (415)
25 744-2000. Respondent shall take such action in consultation with
26 EPA's RPM and in accordance with all applicable provisions of
27 this Order, including but not limited to the Health and Safety

1 Plan and the Contingency Plan.

2 B. Nothing in the preceding paragraph shall be deemed to
3 limit any authority of the United States to take, direct, or or-
4 der all appropriate action to protect human health and the en-
5 vironment or to prevent, abate, or minimize an actual or
6 threatened release of hazardous substances on, at, or from the
7 IMC Site.

8 XVII. ASSURANCE OF ABILITY TO COMPLETE WORK

9 A. Respondent shall demonstrate its ability to complete the
10 work required by this Order and to pay all claims that arise from
11 the performance of the work by obtaining and presenting to EPA
12 within thirty (30) days after approval of the work plan, one of
13 the following: (1) a performance bond; (2) a letter of credit;
14 (3) a guarantee by a third party; or (4) internal financial in-
15 formation to allow EPA to determine that Respondent has suffi-
16 cient assets available to perform the work. Respondent shall
17 demonstrate financial assurance in an amount no less than the es-
18 timate of cost for the remedial investigation in the approved
19 work plan. If Respondent seeks to demonstrate ability to com-
20 plete the remedial investigation by means of internal financial
21 information, or by guarantee of a third party, it shall re-submit
22 such information monthly from the effective date of this Order.
23 If EPA determines that such financial information is inadequate,
24 Respondent shall, within fifteen (15) days after receipt of EPA's
25 notice of determination, obtain and present to EPA for approval
26 on the other forms of financial assurance listed above.

27 B. At least seven (7) days prior to commencing any work at

1 the IMC Site pursuant to this Order, Respondent shall submit to
2 EPA a certification that Respondent or its contractors and sub-
3 contractors have adequate insurance coverage or has indemnifica-
4 tion for liabilities for injuries or damages to persons or
5 property which may result from the activities to be conducted by
6 or on behalf of Respondent pursuant to this Order. Respondent
7 shall ensure that such insurance or indemnification is maintained
8 for the duration of performance of the work required by this Or-
9 der.

10 XVIII. DISCLAIMER

11 The United States, by issuance of this Order, assumes no
12 liability for any injuries or damages to persons or property
13 resulting from acts or omissions by Respondent, or its employees,
14 agents, successors, assigns, contractors, or consultants in car-
15 rying out any action or activity pursuant to this Order. Neither
16 EPA nor the United States shall be held as a party to any con-
17 tract entered into by Respondent, or its employees, agents, suc-
18 cessors, assigns, contractors, or consultants in carrying out any
19 action or activity pursuant to this Order.

20 XIX. ENFORCEMENT AND RESERVATIONS

21 A. EPA reserves the right to bring an action against
22 Respondent under Section 107 of CERCLA, 42 U.S.C. §9607, for
23 recovery of any response costs incurred by the United States re-
24 lated to this Order and not reimbursed by Respondent. This
25 reservation shall include but not be limited to past costs,
26 direct costs, indirect costs, the costs of oversight, the costs
27 of compiling the cost documentation to support oversight cost

1 demand, as well as accrued interest as provided in Section 107(a)
2 of CERCLA, 42 U.S.C. §9607.

3 B. Notwithstanding any other provision of this Order, at
4 any time during the response action, EPA may perform its own
5 studies, complete the response action (or any portion of this
6 response action) and seek reimbursement from Respondent for its
7 costs, or seek any other appropriate relief.

8 C. Nothing in this Order shall preclude EPA from taking any
9 additional enforcement action, including modification of this Or-
10 der or issuance of additional Orders, and/or additional remedial
11 or removal actions as EPA may deem necessary, or from requiring
12 Respondent in the future to perform additional activities pur-
13 suant to CERCLA, 42 U.S.C. §9607(a), et seq., or any other ap-
14 plicable law. Respondent shall be liable under CERCLA Section
15 107(a), 42 U.S.C. §9607(a), for the costs of any such additional
16 actions.

17 D. Notwithstanding any provision of this Order, the United
18 States hereby retains all of its information gathering, inspec-
19 tion and enforcement authorities and rights under CERCLA, RCRA
20 and any other applicable statutes or regulations.

21 E. Respondent shall be subject to civil penalties under
22 Section 106(b) of CERCLA, 42 U.S.C. §9606(b), of not more than
23 \$25,000 for each day in which Respondent violates or fails to
24 comply with the requirements of this Order. In addition, failure
25 to take response action in compliance with this Order, or any
26 portion hereof, without sufficient cause, may result in liability
27 under Section 107(c)(3) of CERCLA, 42 U.S.C. §9607(c)(3), for

1 punitive damages in an amount at least equal to, and not more
2 than three (3) times the amount of any costs incurred by the Haz-
3 ardous Substance Superfund, as a result of such failure to
4 comply.

5 F. Notwithstanding compliance with the terms of this Order,
6 including the completion of an EPA-approved remedial investiga-
7 tion, Respondent is not released from liability, if any, for any
8 enforcement actions beyond the terms of this Order taken by EPA
9 respecting the Site.

10 G. EPA reserves the right to take any enforcement action
11 pursuant to CERCLA and/or any other legal authority, including
12 the right to seek injunctive relief, monetary penalties, reim-
13 bursement of response costs, and punitive damages for any viola-
14 tion of law or this Order.

15 H. EPA expressly reserves all rights and defenses that it
16 may have, including the EPA's right both to disapprove of work
17 performed by Respondent and to request that Respondent perform
18 tasks in addition to those detailed in the work plan, as provided
19 in Section VIII (Work to be Performed) of this Order. EPA
20 reserves the right to undertake removal actions and/or remedial
21 actions at any time. EPA reserves the right to seek reimburse-
22 ment from Respondent for the costs incurred by the United States
23 in removal and remedial actions.

24 I. This Order does not release Respondent from any claim,
25 cause of action or demand in law or equity, including, but not
26 limited to, any claim, cause of action, or demand which lawfully
27 may be asserted by representatives of the United States or the

1 State of Arizona.

2 J. No informal advice, guidance, suggestions, or comments
3 by EPA regarding reports, plans, specifications, schedules, and
4 any other writing submitted by Respondent will be construed as
5 relieving Respondent of its obligation to obtain such formal ap-
6 proval as may be required by this Order.

7 XX. NOTICE OF INTENT TO COMPLY

8 Respondent shall, within seven (7) days of receipt of this
9 Order, provide written notice to EPA stating whether he will
10 comply with the terms of this Order. Failure to respond, or
11 failure to agree to comply with this Order, shall be deemed a
12 refusal to comply with this Order.

13 XXI. OPPORTUNITY TO CONFER

14 A. Respondent may, within seven (7) days of receipt of
15 this Order, request a conference with EPA's Director of the Haz-
16 ardous Waste Management Division, or whomever the Director may
17 designate except for the Remedial Project Manager, to discuss
18 this Order. If requested, the conference shall occur within
19 fourteen (14) days of the request at EPA's Regional Office, 75
20 Hawthorne Street, San Francisco, California.

21 B. The purpose and scope of the conference shall be limited
22 to issues involving the implementation of the response actions
23 required by this Order and the extent to which Respondent intends
24 to comply with this Order. This conference is not an evidentiary
25 hearing, and does not constitute a proceeding to challenge this
26 Order. It does not give Respondent a right to seek review of
27 this Order, or to seek resolution of potential liability, and no

1 official stenographic record of the conference will be made. At
2 any conference held pursuant to Respondent's request, Respondent
3 may appear in person or by an attorney or other representative.
4 Requests for a conference must be made by telephone to Diane
5 Grosser, Remedial Project Manager, (415) 744-2367, 75 Hawthorne
6 Street H-7-2, San Francisco, California 94105.

7 XXII. SEVERABILITY

8 If any provision or authority of this Order or the applica-
9 tion of this Order to any circumstance is held by a court to be
10 invalid, the application of such provision to other circumstances
11 and the remainder of this Order shall not be affected thereby,
12 and the remainder of this Order shall remain in force.

13 XXIII. STATE AND LOCAL AGENCY PARTICIPATION

14 Respondent shall make available, upon request of EPA's
15 Remedial Project Manager, copies of any deliverable required by
16 this Order to the State of Arizona for review. EPA will provide
17 Respondent with a current mailing list of state agencies prior to
18 the effective date of this Order. After the agencies have had
19 the opportunity to review the deliverables, EPA may meet with the
20 agencies to discuss the deliverables and prepare collaborative
21 comments. Any collaborative comments and/or comments prepared by
22 or on behalf of EPA shall be submitted to Respondent as EPA's
23 comments. Respondent shall respond to all of these comments as
24 may be required by the terms of Section VIII (Work to be
25 Performed).

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XXIV. EFFECTIVE DATE

This Order is effective on April 15, 1991, provided Respondent has received this Order prior to that date.

XXV. TERMINATION AND SATISFACTION

The provisions of this Order shall be deemed satisfied upon Respondent's receipt of written notice from EPA that Respondent has demonstrated, to the satisfaction of EPA, that all of the terms of this Order, including any additional tasks which EPA has determined to be necessary, have been completed.

IT IS SO ORDERED:

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

By:



Jeff Zelikson
Director
Hazardous Waste Management Division
Region 9

Date:

3-28-91

1 EPA Region 9 Contacts:

2 Diane Grosser, P.E.
3 Remedial Project Manager (H-7-2)
4 Hazardous Waste Management Division
5 U.S. EPA, Region 9
6 75 Hawthorne Street
7 San Francisco, CA 94105
8 (415) 744-2367

9 Don Zurosky
10 On-Scene Coordinator (H-8-3)
11 Hazardous Waste Management Division
12 U.S. EPA, Region 9
13 75 Hawthorne Street
14 San Francisco, CA 94105
15 (415) 744-2285

16 William Keener
17 Assistant Regional Counsel
18 Office of Regional Counsel (RC-5)
19 U.S. EPA, Region 9
20 75 Hawthorne Street
21 San Francisco, CA 94105
22 (415) 744-1353

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**STATEMENT OF WORK FOR IMC MAGNETICS; REMEDIAL INVESTIGATION
Attachment A to Administrative Order 91-9**

INTRODUCTION

This Statement of Work (SOW) calls for Respondent to implement a remedial investigation (RI) of the IMC facility. The purpose of this RI is to define the nature and extent of contamination at the IMC Site.

Respondent will conduct this RI and will produce a draft RI report that is in accordance with this Statement of Work, the Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (U.S. EPA, Office of Emergency and Remedial Response, October 1988), and any other guidance that EPA uses in conducting a RI (a list of the primary guidance is attached), as well as any additional requirements of this Order. The RI/FS Guidance describes the report format and the required report content. Respondent will furnish all personnel, materials, and services needed, or incidental to, performing the RI, except as otherwise specified in the Order.

This IMC Remedial Investigation Statement of Work calls for the following:

1. A complete analysis and determination of adequacy of all the investigations and remedial activities that have occurred prior to receiving this Order.
2. Identification of the Data Quality Objectives necessary to determine the nature and extent of contamination remaining on the IMC Site including determining the existence of contaminated ground water.
3. Development of a Work Plan, Field Sample Plan (FSP), Quality Assurance/Quality Control Plan (QAPP), and a Health and Safety Plan. Each plan, with the exception of the Health and Safety Plan, will be submitted for EPA approval. No field work will be initiated until EPA has approved the Work Plan, Field Sample Plan and Quality Assurance/Quality Control Plan. Each plan shall be delivered for EPA review under a separate cover.
4. Implementation of the approved plans with EPA oversight.

5. Submittal of a RI report detailing the results of the remedial investigation. A draft report shall be submitted for EPA's approval.

As specified in CERCLA Section 104(a)(1), 42 USC §9604(a)(1), EPA will oversee of Respondent's activities throughout the work. Respondent will support EPA's initiation and conduct of activities related to the implementation of oversight activities. The schedule for completion of this RI SOW is included in the Order at paragraph VIII.B.3.

In order to fulfill the requirements of this Order, Respondent shall implement the work to develop the following deliverables:

1. IMC SITE SCOPING DOCUMENT

Respondent will gather and analyze the existing IMC Site background information to assist in planning the scope of the RI.

Before planning RI activities, all existing IMC Site data will be thoroughly compiled and reviewed by Respondent. Specifically, this will include a review of all presently available data relating to the varieties and quantities of hazardous substances at the IMC Site and all data relating to past disposal practices. This will include a review of the results from any previous sampling events and clean-up activities that have been conducted. This effort will also include a review of any information regarding the construction of the leach field, particularly its disposal lines, to help characterize the migration of waste liquids.

Respondent shall summarize its findings and submit this report prior to drafting the Work Plan. EPA will review and comment on Respondent's findings and will determine the appropriate use of past data.

2. REMEDIAL INVESTIGATION WORK PLAN (RI/FS Guidance, Chapter 2)

Once the data has been collected and analyzed to EPA's satisfaction, Respondent will develop a Work Plan. EPA must review and approve the Work Plan before any field activity is initiated.

The overall IMC Site objectives for the Work Plan are as follows:

- A. Identification of sources of contamination located at the IMC Site.

- B. Identification and delineation of all contaminated media at the IMC Site.
- C. Determination of the fate and transport of the contaminants present at the IMC Site.

The Work Plan will include a comprehensive description of the work to be performed, including the methodologies to be utilized. In addition, the Work Plan must include the rationale for performing the required activities.

Specifically, the Work Plan shall include a description of the following topics:

- * IMC Site Background

- geographic location
- geology, hydrogeology and hydrology
- demographics
- ecological, cultural and natural resources

- * IMC Site History

- IMC operational history
- past disposal practices and waste quantities generated
- previous investigations and clean-up actions
- summary of existing IMC Site specific data
- distribution and location of the contaminants remaining on the IMC Site (known to date)

- * Identification of potential contaminant migration and exposure pathways and receptors

- * Identification of Data Quality Objectives (DQOs)

- * Detailed list of tasks to be performed to fulfill the requirements of this SOW

If Respondent cannot adequately describe the physical characteristics of the IMC Site and its surrounding areas including the physiography, geology, hydrogeology and hydrology, Respondent will include the investigation of the IMC Site characteristics in the Field Sample Plan. Additional data requirements and analyses may be identified throughout the process. Respon-

dent will submit a technical memorandum documenting the need for additional data, and identifying the DQOs whenever such requirements are identified. In event, Respondent is responsible for fulfilling additional data and analysis needs identified by EPA consistent with the general scope and objectives of this RI.

3. THE FIELD SAMPLE PLAN, THE QUALITY ASSURANCE/QUALITY CONTROL PLAN, AND THE HEALTH AND SAFETY PLAN

Respondent will prepare a Field Sample Plan (FSP) and a Quality Assurance/Quality Control Plan (QAPP) to ensure that sample collection and analytical activities are conducted in accordance with technically acceptable protocols, and to ensure that the data meet the DQOs.

Attachment B represents a limited compendium of field sampling techniques, analytical methods, and associated quality assurance/quality control procedures. These field sampling techniques are the more common ones used at the IBW Site (South Area). Where these types of sampling are called for by the Work Plan, Respondent shall use the protocols and analytical methods, and may cite Attachment B in the FSP and QAPP. Respondent shall evaluate and incorporate into the FSP and QAPP any necessary protocols and analytical methods that are not included in Attachment B. The objectives in the Work Plan will dictate the types of sampling that are necessary.

3a. Field Sample Plan (FSP)

The FSP will define in detail the sampling and data gathering methods that will be used during the remedial investigation. It will include sampling objectives, sample location and frequency, sampling equipment and procedures, and sample handling and analysis.

The objectives of the FSP should include, but not limited to, the following:

- A. Determine the source(s) of trichloroethene (TCE), 1,1,1-trichloroethane (TCA), perchloroethene (PCE), and 1,1-dichloroethene (DCE) at the IMC Site and define the horizontal and vertical extent of contamination present.
- B. Determine the source(s) of chromium, cadmium, nickel, and cyanide contamination at the IMC Site and define the horizontal and vertical extent of contamination present.

Sample collection and analysis of surface and subsurface soils should be expanded to include a reasonable frequency of samples collected to define the vertical and lateral extent of surface and subsurface soil contamination. Areas that should be sampled include the soil surrounding and beneath the plating shop, the soil surrounding and beneath the abandoned tanks and leach field that was used in the disposal system of waste liquid, and the soil surrounding the Repair and Overhaul Shop including soil beneath and around the concrete pad behind the Repair and Overhaul Shop. Bulk soil samples should be analyzed for trace metals, base/neutral and acid organic compounds, and volatile organic compounds (VOCs).

The subsurface soil investigation will also include a soil gas investigation. A previous EPA soil investigation for the Indian Bend Wash Superfund Site (South Area) indicated that soil gas levels of concern existed at the IMC Site. Soil gas sampling will be conducted in order to delineate the VOC contamination at the IMC Site.

A minimum of three soil vapor monitoring wells will be required. One will be placed in the area of the leach field, another will be placed in the area of the underground tanks used in the on-site disposal system, and another will be placed in the area of the concrete pad behind the Repair and Overhaul Shop. The soil vapor monitoring wells will be used to determine vertical concentration profiles of VOCs and to determine changes in VOC concentrations with time. The soil vapor monitoring wells will be constructed in the vadose zone and will be constructed to permit vapor sampling at chosen intervals. The soil vapor monitoring wells will be sampled quarterly to determine the chemical nature and concentration of VOCs present, and to detect any changes in chemical character or concentration that may indicate vapor migration or chemical transformation. Additional soil vapor monitoring wells and shallow soil gas sampling may be required to fully assess migration and transformation phenomena. Sample methodology, specifications, analytical methods, and parameters to be implemented for soil gas sampling are identified in Attachment B of this Order.

- C. Determine the existence of ground water contamination beneath the surface within the IMC Site.

A minimum of one shallow (approximately 150 feet deep) ground water monitoring well shall be constructed near or at the leach field disposal area at the IMC Site. The well, at a mini-

mum, will be sampled at quarterly intervals. Drilling and construction of the well, well characterization and sampling and analytical parameters to be followed are in Attachment B.

In addition, the FSP shall include the collection of data to define the physical characteristics of the IMC Site and its surrounding areas including the physiography, geology, hydrogeology, and hydrology, and specific physical characteristic data gaps identified in the Work Plan. This information will be ascertained through a combination of physical measurements, observations, and sampling efforts, and will be utilized to define potential contaminant fate and transport pathways, and receptor populations.

3b. Quality Assurance/Quality Control Plan (QAPP)

The QAPP will describe the project DQOs and organization, functional activities, data reduction, validation, reporting and personnel qualifications. Respondent may cite Attachment B if the necessary techniques, protocols and QA/QC procedures are already described in Attachment B.

Respondent will demonstrate, to EPA's satisfaction, that each laboratory it uses is qualified to conduct the proposed work. This includes use of methods and analytical protocols for the chemicals of concern in the media of interest within detection and quantification limits consistent with both QA/QC procedures and DQOs approved in the QAPP for the IMC Site by EPA. The laboratory must have and follow an approved QA program. If a laboratory not in EPA's Contract Laboratory Program (CLP) is selected by Respondent, methods consistent with CLP methods that would be used at this IMC Site for the purposes proposed and QA/QC procedures approved by EPA will be used. If the laboratory is not in the CLP program, the laboratory's QA/QC program must be submitted for EPA review and approval. EPA approval must be given prior to initiation of work by the non-CLP lab. EPA will require that Respondent submit detailed information to demonstrate that the laboratory is qualified to conduct the work, including information on personnel qualifications, equipment and material specifications. Respondent will provide assurances that EPA has access to laboratory personnel, equipment and records for sample collection, transportation and analysis.

3c. IMC Site Health and Safety Plan

A Health and Safety Plan will be prepared in conformance with Respondent's health and safety program, and in compliance with Occupational Safety & Health Act (OSHA) regulations and

protocols. The Health and Safety Plan will include the eleven (11) elements described in the RI Guidance, such as a health and safety risk analysis, a description of monitoring and personal protective equipment, medical monitoring, and IMC Site control.

4. REMEDIAL INVESTIGATION REPORT (RI/FS GUIDANCE, CHAPTER 3)

During this phase of the RI, the Work Plan, FSP, QAPP and Health and Safety Plan are implemented. Field data are collected and analyzed to provide the information required to accomplish the objectives of the study. Respondent will notify EPA at least two weeks in advance of the field work regarding the planned dates for field activities, including field lay out of the sampling grid, excavation, installation of wells, initiating sampling, installation and calibration of equipment, aquifer tests, and initiation of analysis and other field investigation activities. Respondent will demonstrate that the laboratory analyses utilized during IMC Site characterization meets the specific QA/QC requirements in the QAPP. Respondent shall also demonstrate that all other analyses meet the QA/QC procedures in the FSP and QAPP approved by EPA. Since the activities are often iterative, and to satisfy the objectives of the RI, it may be necessary for Respondent to supplement the work specified in the initial Work Plan. In addition to the deliverables below, Respondent will provide a monthly progress report and participate in meetings at major points in the RI.

The field investigation includes the gathering of data to define site physical characteristics, sources of contamination, and the nature and extent of contamination at the IMC Site. These activities will be performed by Respondent in accordance with the Work Plan, the FSP, and the QAPP.

Respondent will initiate field support activities following EPA approval of the Work Plan, FSP and QAPP. Field support activities include scheduling, and procuring equipment, office space, laboratory services, and/or contractors. Respondent will notify EPA at least two weeks prior to initiating field support activities so that EPA may adequately schedule oversight tasks. Respondent will also notify EPA in writing upon completion of field support activities.

Respondent will analyze and evaluate the data to describe: (1) IMC Site physical characteristics, (2) contaminant source characteristics, (3) nature and extent of contamination, and (4) contaminant fate and transport. Results of the IMC Site physical characteristics, source characteristics, and extent of contamination analyses are utilized in the analysis of contaminant fate

and transport. The evaluation will include the actual and potential magnitude of releases from the sources, and horizontal and vertical spread of contamination as well as mobility and persistence of contaminants.

Information gathered during IMC Site characterization will be consistently documented and adequately recorded by Respondent in well maintained field logs and laboratory reports. The method(s) of documentation must be specified in the Work Plan and/or the FSP and QAPP. Field logs must be utilized to document observations, measurements, and significant events that have occurred during field activities. Laboratory reports must document sample custody, analytical responsibility, analytical results, adherence to prescribed protocols, nonconformity events, corrective measures, and/or data deficiencies.

Respondent will maintain field reports, sample shipment records, analytical results, and QA/QC reports to ensure that only validated analytical data are reported and utilized by EPA. Analytical results developed under the Work Plan will not be included in any IMC Site characterization report unless accompanied by or cross-referenced to a corresponding QA/QC report. In addition, Respondent will establish a data security system to safeguard chain-of-custody forms and other project records to prevent loss, damage, or alteration of project documentation.

After completing field sampling and analysis, Respondent will prepare a draft Remedial Investigation report for EPA approval. This report will include the following:

- a review of the investigative activities that have taken place
- description and display of data which document the location and contamination at the IMC Site (includes a description of the affected medium, location, types, physical state, concentration of contaminants and quantity)
- discussion of fate and transport mechanisms

Also to be included as appendices to the draft RI report are a summary of all validated data, field logs, well construction logs, chain of custody forms and any other information used to document the findings of the remedial investigation.

Respondent will refer to the RI/FS Guidance for an outline of the report format and contents. Following comment by EPA, Respondent will prepare a final RI report which satisfactorily addresses EPA's comments.

REFERENCES FOR CITATION

The following list, although not comprehensive, comprises many of the regulations and guidance documents that apply to the RI process:

The (revised) National Contingency Plan

"Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA," U.S. EPA, Office of Emergency and Remedial Response, October 1988, OSWER Directive No. 9355.3-01.

"Interim Guidance on Potentially Responsible Party Participation in Remedial Investigation and Feasibility Studies," U.S. EPA, Office of Waste Programs Enforcement, Appendix A to OSWER Directive No. 9355.3-01.

"A Compendium of Superfund Field Operations Methods," Two Volumes, U.S. EPA, Office of Emergency and Remedial Response, EPA/540/P-87/001a, August 1987, OSWER Directive No. 9355.0-14.

"EPA NEIC Policies and Procedures Manual," May 1978, revised November 1984, EPA-330/9-78-001-R.

"Data Quality Objectives for Remedial Response Activities," U.S. EPA, Office of Emergency and Remedial Response and Office of Waste Programs Enforcement, EPA/540/G-87/003, March 1987, OSWER Directive No. 9335.0-7B.

"U.S. EPA Region 9 Guidance for Preparing Quality Assurance Project Plans for Superfund Remedial Projects," 9QA-03-00, U.S. EPA Region 9 QAMs, September 1989.

"Users Guide to the EPA Contract Laboratory Program," U.S. EPA, Sample Management Office, August 1982.

"Health and Safety Requirements of Employees Employed in Field Activities," U.S. EPA, Office of Emergency and Remedial Response, July 12, 1981, EPA Order No. 1440.2.

OSHA Regulations in 29 CFR 1910.120 (Federal Register 45654, December 19, 1986).

Preparation of a U.S. EPA Region 9 Field Sampling Plan for Private and State-Lead Superfund Projects, Document Control Number 9QA-06-89, April 1990, U.S. EPA Region 9, Quality Assurance Management Section

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 9

In the matter of:)
)
Indian Bend Wash)
Superfund Site (South Area))
)
SSID #9-G6)
)
RESPONDENT:)
)
IMC Magnetix Corporation)
)
Parcel Nos. 132-38-008C)
132-39-007E)
)
1900, 1901, and 1920 East 5th Street)
Tempe, Arizona 85281)
)
Proceeding Under Section 106(a) of the)
Comprehensive Environmental Response,)
Compensation, and Liability Act of 1980)
(42 U.S.C. §9606(a)).)
)

FIRST AMENDMENT
U.S. EPA Docket
No. 91-9

FIRST AMENDMENT TO THE
ADMINISTRATIVE ORDER FOR
PARTIAL REMEDIAL INVESTIGATION

1 Administrative Order No. 91-9 is hereby amended to read as
2 follows. No changes other than those expressly made herein shall
3 be implied or construed.

4 AMENDMENT ITEM NO. 1. The name "IMC Magnetics Corporation" shall
5 be replaced with the name "IMC Magnetics Corp. Arizona Division."

6 AMENDMENT ITEM NO. 2. Paragraph VIII., WORK TO BE PERFORMED,
7 subparagraph B.3., is hereby replaced and shall read as follows:

8 3. Deliverables to be submitted by Respondent are listed
9 below. This listing includes the schedule that Respondent shall
10 follow.

11 Deliverable
12 **Remedial Investigation**
13 **Work Plan**

Schedule
The Draft Work Plan is due
60 days after the effective
date of this Order.

14 The Final Work Plan is due
15 20 days after Respondent has
received EPA comments on
the Draft Work Plan.

16 **Field Sample Plan**

The Draft Field Sample Plan
is due 45 days after the Work
Plan is approved by EPA.

18 The Final Field Sample Plan
19 is due 20 days after Respon-
20 dent has received EPA comments
on the Draft Field Sample
Plan.

21 **Quality Assurance/**
22 **Quality Control Plan**

The Draft Plan is due
45 days after the Work Plan
is approved by EPA.

23 The Final Plan is due
24 20 days after Respondent has
25 received EPA comments on the
Draft Quality Assurance/
Quality Control Plan.

26 **Health & Safety Plan**

The Health & Safety Plan is
due 45 days after the Work
Plan is approved by EPA.

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1 Remedial Investigation Report The Draft Report is due
2 90 days after the field
3 work is completed.
4
5 The Final Report is due
6 30 days after Respondent
7 receives EPA comments on the
8 Draft Report.
9
10 Monthly Progress Reports Progress Reports are due once
11 a month at the end of the
12 month.
13 AMENDMENT ITEM NO. 3. Attachment A to Administrative Order 91-1,
14 STATEMENT OF WORK FOR IMC MAGNETICS; REMEDIAL INVESTIGATION,
15 paragraph 1. IMC SCOPING DOCUMENT is hereby deleted.
16
17 AMENDMENT ITEM NO. 4. Attachment A to Administrative Order 91-1,
18 STATEMENT OF WORK FOR IMC MAGNETICS; REMEDIAL INVESTIGATION,
19 paragraph 2. REMEDIAL INVESTIGATION WORK PLAN (RI/FS Guidance,
20 Chapter 2), is hereby replaced and shall read as follows:
21
22 1. REMEDIAL INVESTIGATION WORK PLAN (RI/FS Guidance, Chapter 2)
23 Respondent will gather and analyze the existing IMC Site
24 background information to assist in planning the scope of the RI.
25
26 Before planning the RI activities, all existing IMC Site
27 data will be thoroughly compiled and reviewed by Respondent.
28 Specifically, this will include a review of all presently avail-
able data for the IMC Site and all data relating to past disposal
practices. This will include a review of the results from any
previous sampling events (including a review of the data quality
of Respondent's sampling events) and clean-up activities that
have been conducted. This effort will also include a review of
any information regarding the construction of the leach field,
particularly its disposal lines, to help characterize the migra-
tion of waste liquids. Respondent shall summarize its findings
and submit this as part of the Work Plan.

After Respondent has collected and analyzed the existing
data, Respondent will develop a Work Plan. EPA must review and
approve the Work Plan before any field activity is initiated.

The overall IMC Site objectives for the Work Plan are as
follows:

A. Identification of sources of contamination located at the IMC
Site.

B. Identification and delineation of all contaminated media at

1 the IMC Site.

2 C. Determination of the fate and transport of the contaminants
3 present at the IMC Site.

4 The Work Plan will include a comprehensive description of
5 the work to be performed, including the methodologies to be utilized. In addition, the Work Plan must include the rationale for performing the required activities.

6 Specifically, the Work Plan shall include a description of
7 the following topics:

8 * IMC Site Background

- 9 - geographic location
- 10 - geology, hydrogeology and hydrology
- 11 - demographics
- 12 - ecological, cultural and natural resources

13 * IMC Site History

- 14 - IMC operational history
- 15 - past disposal practices and waste quantities generated
- 16 - previous investigations and clean-up actions
- 17 - summary of existing IMC Site specific data
- 18 - distribution and location of the contaminants remaining of the IMC Site (known to date)

19 * Identification of potential contaminant migration and exposure pathways and receptors

20 * Identification of Data Quality Objectives (DQOs)

21 * Detailed list of tasks to be performed to fulfill the requirements of this SOW

22 If Respondent cannot adequately describe the physical characteristics of the IMC Site and its surrounding areas including the physiography, geology, hydrogeology and hydrology, Respondent will include the investigation of the IMC Site characteristics in the Field Sample Plan. Additional data requirements and analyses may be identified throughout the process. Respondent will submit a technical memorandum documenting the need for additional data, and identifying the DQOs whenever such requirements are identified. In any event, the Respondent is responsible for fulfill

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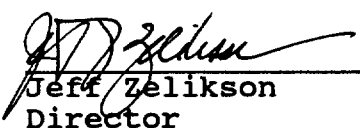
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1 ing additional data and analysis needs identified by EPA consis-
2 tent with the general scope and objectives of the RI.

3 ADMINISTRATIVE ORDER NO. 91-1 IS SO AMENDED.

4 UNITED STATES
5 ENVIRONMENTAL PROTECTION AGENCY

6
7 By:


8 Jeff Zelikson
9 Director
Hazardous Waste Management Division
Region 9

Date:

4-30-91